



Rectifier Diode Module

VRRM 4000 to 4500V

IFAV 110A

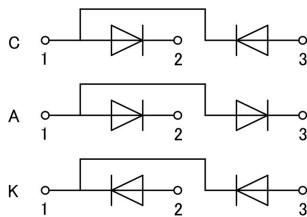
Applications

- Non-controllable rectifiers for AC/AC converters
- Line rectifiers for transistorized AC motor controllers
- Field supply for DC motors

Features

- International standard package
- High Surge Capability
- Simple Mounting

Circuit



Blocking Characteristics

TYPE			VRRM	VRSM	Units
MD110C40AD2	MD110A40AD2	MD110K40AD2	4000	4100	V
MD110C42AD2	MD110A42AD2	MD110K42AD2	4200	4300	V
MD110C44AD2	MD110A44AD2	MD110K44AD2	4400	4500	V
MD110C45AD2	MD110A45AD2	MD110K45AD2	4500	4600	V

Maximum Ratings

Symbol	Conditions	Values	Units
IFAV	Single phase ,half wave 180° conduction Tc=100℃	110	A
IFSM	t=10ms Tvj=TVjM	2100	A
i²t	t=10ms Tvj=TVjM	22000	A²s
Visol	a.c.50HZ;r.m.s.;1min,Iiso :2mA(max)	4500	V
Tvj		-40 to 150	℃
Tstg		-40 to 125	℃
Mt	To terminals(M6)	6±15%	Nm
Ms	To heatsink(M6)	6±15%	Nm
Weight	Module (Approximately)	320	g

Thermal Characteristics

Symbol	Conditions	Values	Units
Rth(j-c)	per diode	0.19	℃/W
Rth(c-s)	per diode	0.08	℃/W

Electrical Characteristics

Symbol	Conditions	Values			Units
		Min.	Typ.	Max.	
VFM	T=25℃ IF =330A			1.8	V
IRRM	Tvj=TVjM V=VRRM			15	mA
VFO	Tvj=TVjM			0.85	V
rF	Tvj=TVjM			1.76	mΩ



Performance Curves

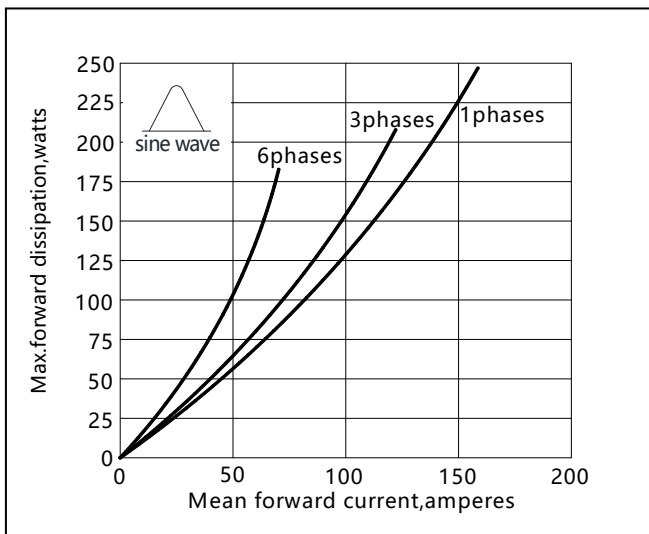


Fig1. Power dissipation

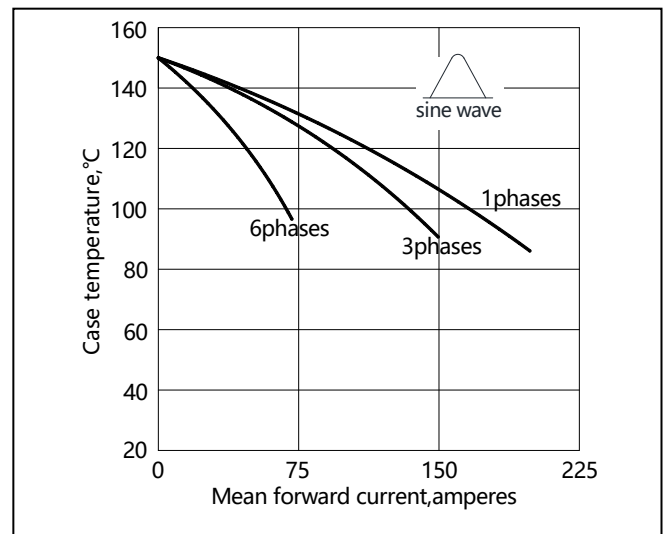


Fig2. Forward Current Derating Curve

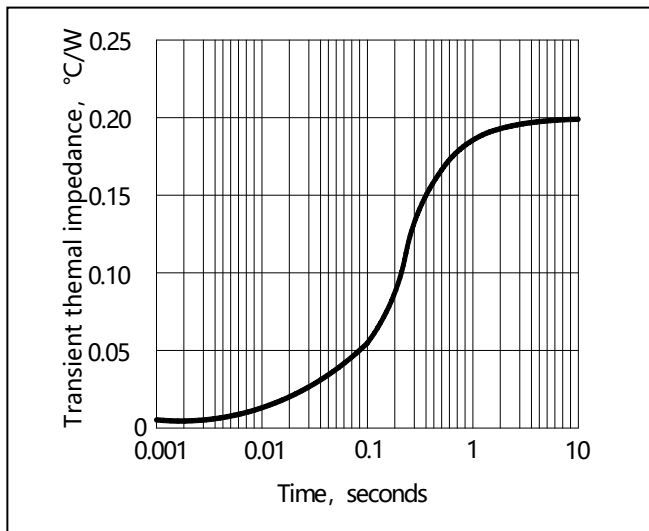


Fig3. Transient thermal impedance

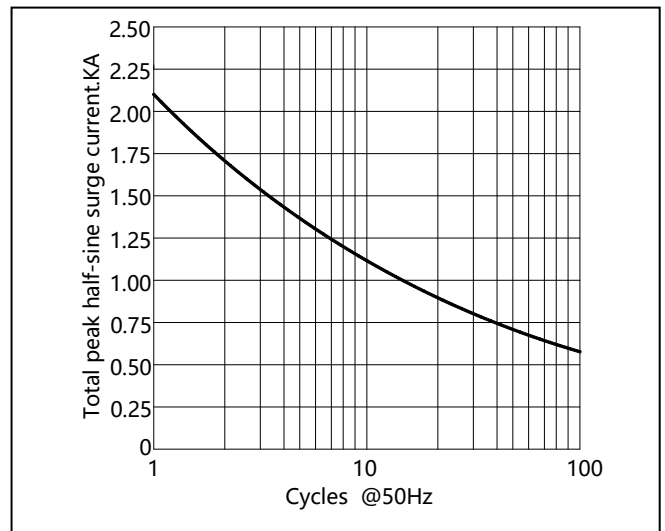


Fig4. Max Non-Repetitive Forward Surge Current

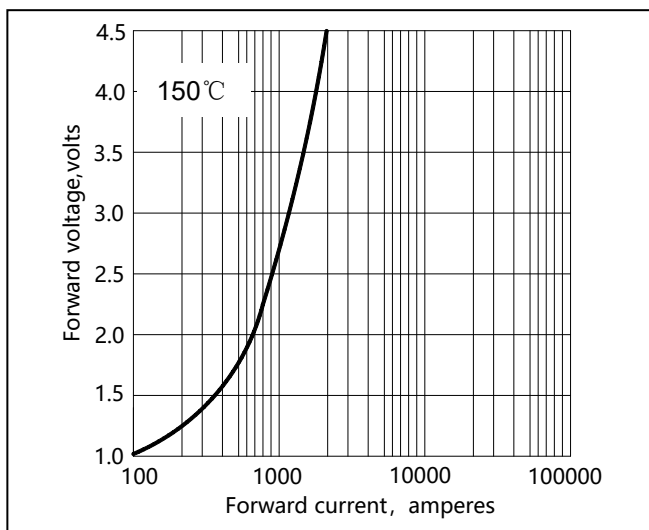
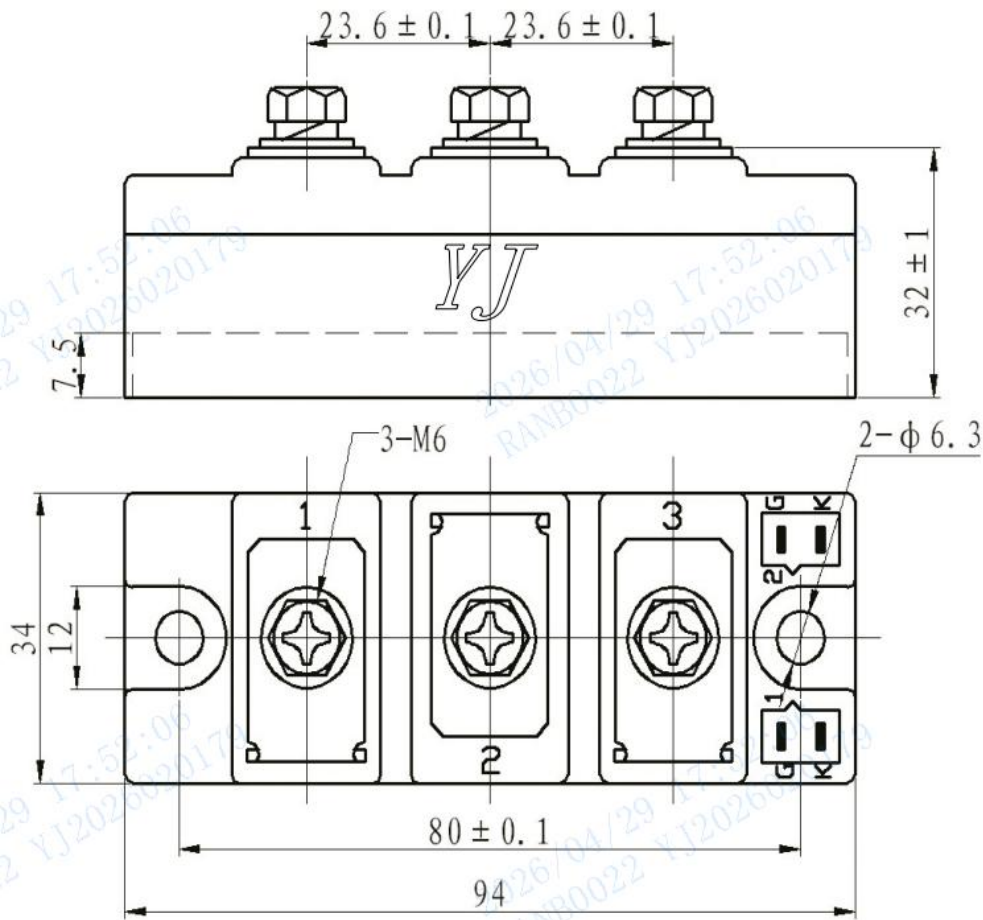


Fig5. Forward Characteristics

Package Outline Information

CASE: AD2



Dimensions in mm

Unmarked dimensional tolerance: ± 0.5 mm



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